Amendments to the Claims:

1. (original) A method of forming an iridium-containing film on a substrate, from an iridium-containing precursor thereof that is decomposable to deposit iridium on the substrate, said method comprising decomposing the precursor and depositing iridium on the substrate in an oxidizing ambient environment.

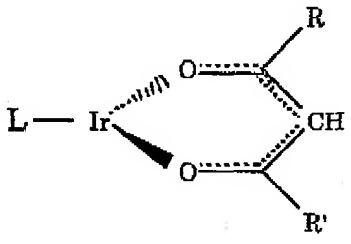
2. (original) The method according to claim 1, wherein the oxidizing ambient environment comprises an atmosphere containing an oxidizing gas selected from the group consisting of oxygen, ozone, air, and nitrogen oxide.

3. (original) The method according to claim 1, wherein the iridium deposited on the substrate comprises elemental iridium.

4. (original) The method according to claim 1, wherein the iridium deposited on the substrate comprises iridium oxide, or a combination of iridium and iridium oxide.

5. (original) The method according to claim 1, wherein the precursor comprises a composition selected from the group consisting of:

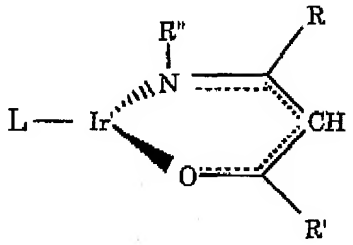
Lewis base stabilized Ir(I) ß-diketonates of formula I:



I

wherein R and R' may be alike or different and may be H, aryl, perfluoroaryl, C_1 - C_6 alkyl, or C_1 - C_6 perfluoroalkyl, and L is a coordinating Lewis base; and

Lewis base stabilized Ir(I) ß-ketoiminates of formula II:



II

wherein R, R', and R" are the same or different, and are independently selected from the group consisting of H, aryl, perfluoroaryl, C_1 - C_6 alkyl, or C_1 - C_6 perfluoroalkyl, and L is a coordinating Lewis base.

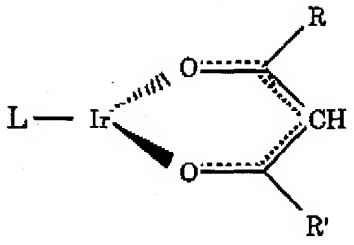
6. (original) The method according to claim 5, wherein the coordinating Lewis base is selected from the group consisting of alkene, diene, cycloalkene, cyclodiene, cyclooctatetraene, alkyne, substituted alkyne (symmetrical or asymmetrical), amine, diamine, triamine, tetraamine, ether, tetrahydrofuran, glyme, diglyme, triglyme, tetraglyme, phosphine, carbonyl, dialkyl sulfide, vinyltrimethylsilane, and allyltrimethylsilane.

7. (original) The method according to claim 1, wherein the oxidizing ambient environment comprises air.

8. (original) The method according to claim 1, wherein the decomposition of the precursor and deposition of iridium on the substrate is carried out by a process selected from the group consisting of chemical vapor deposition (CVD), assisted-CVD, ion plating, rapid thermal processing, and molecular beam epitaxy.

9. (original) The method according to claim 1, wherein the precursor comprises a composition selected from the group consisting of:

Lewis base stabilized Ir(I) ß-diketonates of formula I:



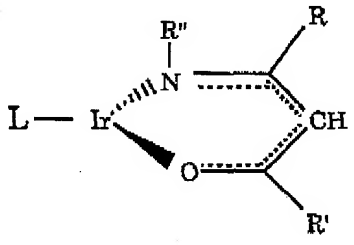
I

wherein R and R' may be alike or different and may be H, aryl, perfluoroaryl, C_1 - C_6 alkyl, or C_1 - C_6 perfluoroalkyl, and L is a coordinating Lewis base.

10. (original) The method according to claim 9, wherein the coordinating Lewis base is selected from the group consisting of alkene, diene, cycloalkene, cyclodiene, cyclooctatetraene, alkyne, substituted alkyne (symmetrical or asymmetrical), amine, diamine, triamine, tetraamine, ether, tetrahydrofuran, glyme, diglyme, triglyme, tetraglyme, phosphine, carbonyl, dialkyl sulfide, vinyltrimethylsilane, and allyltrimethylsilane.

11. (original) The method according to claim 1, wherein the precursor comprises a composition selected from the group consisting of:

Lewis base stabilized Ir(I) ß-ketoiminates of formula II:



II

wherein R, R', and R" are the same or different, and are independently selected from the group consisting of H, aryl, perfluoroaryl, C_1 - C_6 alkyl, or C_1 - C_6 perfluoroalkyl, and L is a coordinating Lewis base.

12. (original) The method according to claim 11, wherein the coordinating Lewis base is selected from the group consisting of alkene, diene, cycloalkene, cyclodiene, cyclooctatetraene, alkyne, substituted alkyne (symmetrical or asymmetrical), amine, diamine, triamine, tetraamine,

ether, tetrahydrofuran, glyme, diglyme, triglyme, tetraglyme, phosphine, carbonyl, dialkyl sulfide, vinyltrimethylsilane, and allyltrimethylsilane.

13. (original) The method according to claim 1, wherein the decomposition of the precursor and deposition of iridium on the substrate is carried out by chemical vapor deposition.

14. (original) The method according to claim 1, wherein the iridium deposited on the substrate is processed to yield an iridium-containing film element on the substrate, having critical dimensional characteristics below about 0.5 micron.

15. (original) The method according to claim 14, wherein the decomposition of the precursor and deposition of iridium on the substrate is carried out by chemical vapor deposition.

16. (original) A method of forming a microelectronic device or precursor structure on a substrate, including an electrode operatively associated with a high-temperature dielectric or ferroelectric material deposited thereover, said method comprising:

(A) forming an iridium-containing film on the substrate, from an iridium-containing precursor thereof which is decomposable to deposit iridium on the substrate, comprising:

(i) decomposing the precursor and depositing iridium on the substrate in an oxidizing ambient environment; and

(ii) processing the deposited iridium into an iridium-based electrode element; and

(B) depositing on the iridium-based electrode element a high temperature dielectric and/or ferroelectric material.

17. (original) The method according to claim 16, wherein the iridium-based electrode element has deposited thereon a high temperature dielectric material.

18. (original) The method according to claim 16, wherein the iridium-based electrode element has deposited thereon a high temperature ferroelectric material selected from the group consisting of SBT and PZT.

19. (original) The method according to claim 16, wherein the microelectronic device or precursor structure comprises a DRAM or FRAM capacitor device or structure.

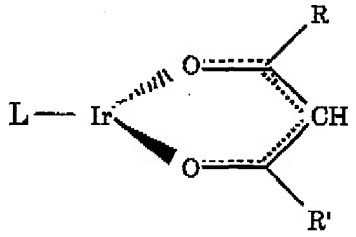
20. (original) The method according to claim 16, wherein the high temperature dielectric and/or ferroelectric material comprises a material selected from the group consisting of SBT, PZT, BST, PLZT, PNZT, and LCMO.

21. (original) The method according to claim 16, wherein the iridium deposited on the substrate comprises elemental iridium.

22. (original) The method according to claim 16, wherein the iridium deposited on the substrate comprises iridium oxide or a combination of iridium and iridium oxide.

23. (original) The method according to claim 16, wherein the precursor comprises a composition selected from the group consisting of:

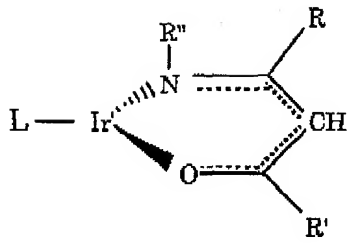
Lewis base stabilized Ir(I) ß-diketonates of formula I:



I

wherein R and R' may be alike or different and may be H, aryl, perfluoroaryl, C_1 - C_6 alkyl, or C_1 - C_6 perfluoroalkyl, and L is a coordinating Lewis base; and

Lewis base stabilized Ir(I) ß-ketoiminates of formula II:



II

wherein R, R', and R" are the same or different, and are independently selected from the group consisting of H, aryl, perfluoroaryl, C_1 - C_6 alkyl, or C_1 - C_6 perfluoroalkyl, and L is a coordinating Lewis base.

24. (original) The method according to claim 23, wherein the coordinating Lewis base is selected from the group consisting of alkene, diene, cycloalkene, cyclodiene, cyclooctatetraene, alkyne, substituted alkyne (symmetrical or asymmetrical), amine, diamine, triamine, tetraamine, ether, tetrahydrofuran, glyme, diglyme, triglyme, tetraglyme, phosphine, carbonyl, dialkyl sulfide, vinyltrimethylsilane, and allyltrimethylsilane.

25. (original) The method according to claim 23, wherein the oxidizing ambient environment comprises air.

26. (original) The method according to claim 16, wherein steps (A)(i), (A)(ii) and (B) are carried out in the same oxidizing ambient environment.

Claims 27-29 (canceled)

Claim 32 (canceled)